Title (en)

MAGNETIC RESONANCE IMAGING SYSTEM WITH A MULTI-CHANNEL IMPEDANCE MATCHING NETWORK

Title (de)

MAGNETRESONANZBILDGEBUNGSSYSTEM MIT EINEM MEHRKANALIGEN IMPEDANZANPASSUNGSNETZWERK

Title (fr)

SYSTÈME D'IMAGERIE PAR RÉSONANCE MAGNÉTIQUE À RÉSEAU MULTICANAUX D'ADAPTATION D'IMPÉDANCE

Publication

EP 2729824 B1 20210512 (EN)

Application

EP 12737885 A 20120621

Priority

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Abstract (en)

[origin: WO2013008116A1] The Magnetic Resonance Imaging (MRI) system includes a radio-frequency transmitter with multiple transmit channels. The MRI system includes an impedance matching network (320, 1402, 1502, 1602) for matching the radio-frequency transmitter to a remotely adjustable radio-frequency antenna (310, 1504, 1602) with multiple antenna elements (312, 314, 316, 318, 1404). The MRI system includes a processor (336) for controlling the MRI system. The execution of the instructions by the processor causes it to: measure (100, 200) a set of radio-frequency properties (352) of the radio-frequency antenna, calculate (102, 202) a matching network command (354) using the set of radio-frequency properties and a radio frequency model (366), and adjust (104, 204) the impedance matching network by sending the matching network command to the impedance matching network, thereby enabling automatic remote impedance matching.

IPC 8 full level

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CPC (source: EP US)

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